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ANNE E. BARSCHALL 80 BENEDICT AVENUE TARRYTOWN, NY 10591-4142			STORK, KYLE R	
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			2178	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/907,240

Applicant(s)

CHEN ET AL.

Examiner

Kyle R Stork

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This non-final office action is in response to the amendment filed 7 March 2005.
2. Claims 1-75 are pending. Claim 75 is added by the amendment. Claims 1, 13, 25, 37, 42, 53, 64, and 75 are independent claims. The rejection of claims 1-2, 4-8, 13-14, 16-20, 25-26, 28-32, 37-39, 41-44, 49, 53-55, 60, 64-66, and 71 under 35 USC 102(b) under Xedi.org ("XML and EDI: Peaceful Co-Existence," 1999, hereafter Xedi) has been withdrawn. The rejection of claims 3, 9-12, 15, 21-24, 27, 33-36, 40, 45-48, 50-52, 56-59, 61-63, 67-70, and 72-74 under 35 USC 103 under combination of Xedi, Kotok, Rein, Sheth, Abjanic et al. (hereafter Abjanic), and Malerba have been withdrawn. The rejection of claims 25-41 and 74-74 under 35 USC 101 have been withdrawn.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 45-47, 56-58, and 67-69 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The applicant attempts to further define "reversible" in the remarks filed 7 March 2005, by stating that, "the schema is reversible if it can be used both for deposit and retrieval." However, this definition in light of claim 45 is still indefinite. It is unclear whether the applicant intends to claim the ability to deposit data in a first format to data

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in a second format, while maintaining the ability to convert from the second format back to the first format; or whether the applicant intends to claim the ability to convert data from one format to a format suitable for storing in a data structure, while maintaining the ability to retrieve data from the data structure and converting the data back to a first format.

Claims 56 and 67 are rejected for being similar in scope to claim 45.

Claims 46-47, 57-58, and 68-69 are rejected for being based upon a rejected base claim.

Claim Rejections - 35 USC § 101

5. The rejection of claims 25-41 and 74-74 under 35 USC 101 have been withdrawn based upon the applicants amendment filed 7 March 2005.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-2, 4-8, 13-14, 16-20, 25-26, 28-32, 37-44, 49, 53-55, 60, 64-66, 71, and 75 rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi in further view of Extol, Inc. ("XML: To Be Or Not To Be?" hereafter Extol

As per independent claim 1, Xedi discloses a method for creating electronic communication, comprising executing the following operations in at least one data processing device:

- First retrieving data from at least one type of data source into a first electronic format using at least one first annotated schema (page 12, Figure 8; pages 11-14: Here, the user can access data in EDI)
- Second retrieving data from the first electronic format into a second electronic format (page 12, Figure 8; pages 11-14: Here, the user can access data in EDI or XML language. If the first electronic format is EDI, then here the second format is XML. Similarly, if the first electronic format is XML, then here the second format is EDI)

Xedi fails to specifically disclose X12 EDI standard as an annotated schema. However, the X12 EDI standard is an annotated schema in that it maps retrieved data into documents that conform to the standard (Extol: page 4, paragraph 1: Here data is retrieved through user input; page 6, paragraph 2: Here, both X12 and EDIFACT are disclosed as mapping data into the layout for various standard documents; Xedi: page 13, paragraph 2).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi with the X12 EDI schema, since it would have allowed a user to transform data from the EDI format to XML in order to facilitate transactions between vendors.

As per dependent claim 2, Xedi discloses the method wherein the first electronic format comprises at least one XML document (page 11).

As per dependent claim 4, Xedi discloses the method wherein the first and second retrieving are done using a same type software engine applied first to the least one type of data source and then to the first electronic format (Figures 8-9).

As per dependent claim 5, Xedi discloses the method wherein the second electronic format belongs to the category of XML/EDI electronic document specification languages (page 11).

As per dependent claim 6, Xedi discloses the method wherein the first annotated schema comprises at least one first annotated DTD and the second annotated schema comprises at least one second annotated DTD (page 10, paragraphs 2; page 11, last paragraph: Here, the EDI-XML translator acts at the annotated DTD for both schemas, as it converts the tags from each schema to tags understandable by the other schema.)

As per dependent claim 7, Xedi discloses the method wherein the at least one second annotated schema comprises:

- A single DTD for all possible document types within a single industrial electronic document specification language (page 10, last paragraph)
- Annotations for retrieving specifications for a desired document type from the first electronic format (page 11, last paragraph; Figure 9; pages 11-13)

As per dependent claim 8, the applicant discloses the limitations similar to those in claim 4. Claim 8 is thusly rejected under Xedi.

As per independent claim 13, the applicant discloses limitations similar to those in claim 1. Xedi further shows transmission of data over the internet (page 11, paragraphs 3-4: Here Xedi discloses sending XML documents over the internet to trading partners).

As per dependent claim 14, the applicant discloses the limitations similar to those in claim 2. Claim 14 is thusly rejected under Xedi.

As per dependent claim 16, the applicant discloses the limitations similar to those in claim 4. Claim 16 is thusly rejected under Xedi.

As per dependent claim 17, the applicant discloses the limitations similar to those in claim 5. Claim 17 is thusly rejected under Xedi.

As per dependent claim 18, the applicant discloses the limitations similar to those in claim 6. Claim 18 is thusly rejected under Xedi.

As per dependent claim 19, the applicant discloses the limitations similar to those in claim 7. Claim 19 is thusly rejected under Xedi.

As per dependent claim 20, the applicant discloses the limitations similar to those in claim 4. Claim 20 is thusly rejected under Xedi.

As per dependent claim 25, the applicant discloses the medium readable by a processing device and embodying code for performing the operations similar to those in claim 13. Claim 25 is thusly rejected under Xedi.

As per dependent claim 26, the applicant discloses the limitations similar to those in claim 2. Claim 26 is thusly rejected under Xedi.

As per dependent claim 28, the applicant discloses the limitations similar to those in claim 4. Claim 28 is thusly rejected under Xedi.

As per dependent claim 29, the applicant discloses the limitations similar to those in claim 5. Claim 29 is thusly rejected under Xedi.

As per dependent claim 30, the applicant discloses the limitations similar to those in claim 6. Claim 30 is thusly rejected under Xedi.

As per dependent claim 31, the applicant discloses the limitations similar to those in claim 7. Claim 31 is thusly rejected under Xedi.

As per dependent claim 32, the applicant discloses the limitations similar to those in claim 4. Claim 32 is thusly rejected under Xedi.

As per independent claim 37, Xedi discloses at least one medium embodying code readable by at least one data processing device, the code comprising:

- A universal schema adapted to create all possible document types suitable for use with a single electronic document specification language (page 10, last paragraph)
- Annotations adapted to guide retrieval of data from at least one type of data source to specify a particular output document in accordance with the universal schema (Figure 9; pages 12-13, Converting EDI and XML: Here, the translator XEDI transforms EDI messages into an XML document.)

As per dependent claim 38, the applicant discloses the limitations similar to those in claim 2. Claim 38 is thusly rejected under Xedi.

As per dependent claim 39, the applicant discloses the limitations similar to those in claim 6. Claim 39 is thusly rejected under Xedi.

As per dependent claim 40, Xedi discloses the medium of claim 39, wherein the universal DTD is annotated with recursive constructs (page 10; Figure 9: Here, Xedi discloses the use of an annotated DTD (labeled XEDI in Figure 9). The applicant further admits in the remarks filed 7 March 2005 that "recursive DTD structures are a normal part of DTD grammar (page 28, paragraph 2)).

As per dependent claim 41, Xedi discloses the medium wherein the universal DTD attaches unique labels to corresponding intermediate XML document or value pairs (Figure 9; pages 12-13, Converting EDI and XML).

As per independent claim 42, Xedi discloses a method for depositing data into at least one type of data source, the method comprising executing the following operations in a digital data processing device:

- Receiving a specification for deposit (Figure 8; pages 11-14)
- Processing the specification in accordance with an annotated schema (pages 12-13, Converting EDI and XML)
- Responsive to the processing, depositing data in at least one type of data source in accordance with a local format of that source (pages 11-114: Here, the document is converted from either XML or EDI to either XML or EDI in order for the receiver to process the request.)

As per dependent claim 43, the applicant discloses the limitations similar to those in claim 6. Claim 43 is thusly rejected under Xedi.

As per dependent claim 44, the applicant discloses the limitations similar to those in claim 2. Claim 44 is thusly rejected under Xedi.

As per dependent claim 49, the Xedi discloses the method wherein the processing comprises:

- First processing the specification in accordance with a universal annotated schema adapted to all document types supported by a given industrial electronic document specification language, in order to convert the specification into a first local format (page 10, last paragraph; page 12, Figure 8; pages 11-14)
- Second processing the first local format in accordance with a local annotated schema to convert the first local format to a second local format (page 12, Figure 8; pages 11-14)

As per independent claim 53, the applicant discloses the device similar to claim 13 and used to perform the method of claim 42. Claim 53 is thusly rejected under Xedi.

As per dependent claim 54, the applicant discloses the limitations similar to those in claim 6. Claim 54 is thusly rejected under Xedi.

As per dependent claim 55, the applicant discloses the limitations similar to those in claim 2. Claim 55 is thusly rejected under Xedi.

As per dependent claim 60, the applicant discloses the limitations similar to those in claim 49. Claim 60 is thusly rejected under Xedi.

As per independent claim 64, the applicant discloses the medium, readable by at least one data processing device embodying code for performing the method of claim 42. Claim 64 is thusly rejected under Xedi.

As per dependent claim 65, the applicant discloses the limitations similar to those in claim 6. Claim 65 is thusly rejected under Xedi.

As per dependent claim 66, the applicant discloses the limitations similar to those in claim 2. Claim 66 is thusly rejected under Xedi.

As per dependent claim 71, the applicant discloses the limitations similar to those in claim 49. Claim 71 is thusly rejected under Xedi.

As per independent claim 75, Xedi discloses a method comprising executing the following operation in at least one data processing device:

- Retrieving first data stored in at least one first format from a first data source (page 12, Figure 8; pages 11-14)
- Using at least one annotated schema including a universal annotated schema to convert the data into at least one second format (Figure 9)
- Depositing the first data according to at least one second format into a second data source (page 11; page 12, Figure 8)

Xedi fails to specifically discloses the method of:

- Retrieving second data according to at least one such second format from the second data source
- Using at least the universal annotated schema to convert the second data to at least one such first format

However, Extol discloses:

- Retrieving second data according to at least one such second format from the second data source (pages 18-19)

- Using at least the universal annotated schema to convert the second data to at least one such first format (pages 18-19)

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi's method with Extol's method, since it would have allowed for data to be passed between two vendors.

8. Claims 3, 9, 15, 21, 27, 33, 50, 61, and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi and Extol and further in view of Kotok (XML and EDI Lessons Learned and Baggage to Leave Behind, 1999).

As per dependent claim 3, Xedi discloses the limitations similar to those in claim 1, and the same rejection is incorporated herein. Xedi fails to specifically disclose the method wherein the first electronic format comprises at least one value pair. Kotok discloses the method wherein the first electronic format comprises at least one value pair (page 5, paragraph 4: Here, the DTD contains sets of elements and attributes in tag form, this is equivalent to value pairs. Further, the names that are used as tags and the element relationship or transaction form a pair of values, name and relationship/transaction).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi's method of retrieving data in an electronic format with Kotok's method of data containing value pairs, since it would have allowed a user to validate the structure of the document (Kotok: page 5, paragraph 4).

As per dependent claim 9, Xedi discloses the limitations similar to those in claim 1, and the same rejection is incorporated herein. Xedi fails to specifically disclose the method wherein the at least one type of data source comprises heterogeneous databases. Kotok discloses the method wherein the at least one type of data source comprises heterogeneous databases (page 3, paragraph 1: Here, the EDI X12 standard referenced in Xedi, is modeled on a relational database. This database is able to contain data formats consistent with the EDI X12 standard. This makes the database a heterogeneous database).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi's method of data retrieval with Kotok's method of using a database, since the X12 standard described in Xedi is reliant upon a database.

As per dependent claim 15, the applicant discloses the limitations similar to those in claim 3. Claim 15 is thusly rejected under Xedi and Kotok.

As per dependent claim 21, the applicant discloses the limitations similar to those in claim 9. Claim 21 is thusly rejected under Xedi and Kotok.

As per dependent claim 27, the applicant discloses the limitations similar to those in claim 3. Claim 27 is thusly rejected under Xedi and Kotok.

As per dependent claim 33, the applicant discloses the limitations similar to those in claim 9. Claim 33 is thusly rejected under Xedi and Kotok.

As per dependent claim 50, Xedi discloses the limitation similar to those in claim 49, and the same rejection is incorporated herein. Xedi further discloses:

- The universal annotated schema comprising a universal annotated DTD (page 11, last paragraph)
- The first local format comprises an XML document or at least one value pair (page 11)
- The local annotated schema comprises a local annotated DTD or local annotated table (page 11)

Xedi fails to specifically disclose the method wherein the second local format comprises multiple relational databases. Kotok discloses the method wherein the second local format comprises multiple relational databases (page 3, paragraph 1; page 5, paragraph 3: In the first section Kotok discloses a relational database. In the second section, Kotok discloses the ability of XML to reference data in repositories. A repository is well known in the art as a place where multiple databases or files are located (<http://en.wikipedia.org/wiki/Repository>)).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi's method of data retrieval with Kotok's method of using a database, since the X12 standard described in Xedi is reliant upon a database.

As per dependent claim 61, the applicant discloses the limitations similar to those in claim 50. Claim 61 is thusly rejected under Xedi and Kotok.

As per dependent claim 72, the applicant discloses the limitations similar to those in claim 50. Claim 72 is thusly rejected under Xedi and Kotok.

9. Claims 10-11, 22-23, and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi and Extol in further in view of Rein (XML '99: Quotes from the Conference Floor, 1999).

As per dependent claim 10, Xedi discloses the limitations similar to those in claim 1, and the same rejection is incorporated herein. Xedi further discloses creating internal representation relating the second format to the at least one type of data source (page 11- 14). Xedi fails to specifically disclose the method further comprising using a GUI tool. Rein discloses the method further comprising using a GUI tool (page 3, paragraph 2).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi's method of relating the format to a data source with Rein's method of using a GUI tool, since it would have allowed a user to visually select the format.

As per dependent claim 11, Xedi and Rein disclose the limitations similar to those in claim 10, and the same rejection is incorporated herein. Rein further discloses the method wherein the GUI tool can systematically organize a template from combining and merging (page 3, paragraph 2: Here, several templates are combined, including ASP, JavaScript, and CGI).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi and Rein's method of using a GUI with Rein's method of creating templates through a GUI, since it would have allowed a user to create hybrid applications using code libraries (Rein: page 3, paragraph 2).

As per dependent claim 22, the applicant discloses the limitations similar to those in claim 10. Claim 22 is thusly rejected under Xedi and Rein.

As per dependent claim 23, the applicant discloses the limitations similar to those in claim 11. Claim 23 is thusly rejected under Xedi and Rein.

As per dependent claim 34, the applicant discloses the limitations similar to those in claim 10. Claim 34 is thusly rejected under Xedi and Rein.

As per dependent claim 35, the applicant discloses the limitations similar to those in claim 11. Claim 35 is thusly rejected under Xedi and Rein.

10. Claims 12, 24, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi, Extol, and Rein in further in view of Kotok.

As per dependent claim 12, Xedi and Rein disclose the limitations similar to those in claim 11, and the same rejection is incorporated herein. Xedi and Rein fail to specifically disclose the method accepting a single annotation for certain repeatable constructs in the template, and can also replicate the repeatable constructs a fixed number of times for customized annotation. Kotok discloses the method accepting a single annotation for certain repeatable constructs in the template, and can also replicate the repeatable constructs a fixed number of times for customized annotation (page 3, paragraph 1; Here, the data appears in every transaction set and is repeatable).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi and Rein's method of using a GUI tool with

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Kotok's method of using repeatable constructs, since it would have allowed a user to append identification information to data in the transaction.

As per dependent claim 24, the applicant discloses the limitations similar to those in claim 12. Claim 24 is thusly rejected under Xedi and Rein.

As per dependent claim 36, the applicant discloses the limitations similar to those in claim 12. Claim 36 is thusly rejected under Xedi and Rein.

11. Claims 45-47, 56-58, and 67-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi and Extol and further in view of Abjanic et al. (US 2003/0069975, 2003).

As per dependent claim 45, Xedi discloses the limitations similar to those in claim 42, and the same rejection is incorporated herein. Xedi fails to specifically disclose the method wherein the operations further comprise determining whether the annotated schema is reversible in view of the specification for deposit. Extol disclose reversibility (pages 18-19: Here, Extol discloses a transformation of EDI-to-XML and the reverse transformation of XML-to-EDI). Abjanic discloses the method of determining whether reversibility (paragraphs 85-86 and 98: Here, it is determined whether the current format of the data is compliant with the destination application. If the data is not compliant with a data type understood by the destination application, than a transformation is applied to the data to make it compliant).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi's method with Extol's method since it would

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have allowed large and small vendors to supply each other with data based upon a standard (Xedi: page 12, final paragraph). Further, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi and Extol's method with Abjanic's method, since it would have allowed a user to save computational time by only reversing data if necessary.

As per dependent claim 46, Xedi, Extol, and Abjanic disclose the limitations similar to those in claim 45, and the same rejection is incorporated herein. Extol further discloses, creating a revised annotated schema that is reversible, so that the data is depositable in accordance with the revised annotated schema (pages 18-19).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi, Extol, and Abjanic's method with Extol's method, since it would have allowed a user to store data in a format that would be able to be processed locally.

As per dependent claim 47, Xedi, Extol, and Abjanic disclose the limitations similar to those in claim 46, and the same rejection is incorporated herein. Xedi further discloses depositing the data in accordance with annotations of the annotated schema (pages 11-114). Xedi further discloses the use of an annotated schema in conjunction with a DTD to convert between EDI and XML (Figure 9; page 10, paragraph 2). Extol specifically discloses conversion of EDI-to-XML and XML-to-EDI, and the use of DTD by XML to describe document structure (pages 9 and 18-19).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi, Extol, and Abjanic's method with Extol's

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method, since it would have allowed a user to store data in a format that would be able to be processed locally.

As per dependent claim 56, the applicant discloses the limitations similar to those in claim 45. Claim 56 is thusly rejected under Xedi and Abjanic.

As per dependent claim 57, the applicant discloses the limitations similar to those in claim 46. Claim 57 is thusly rejected under Xedi and Abjanic.

As per dependent claim 58, the applicant discloses the limitations similar to those in claim 47. Claim 58 is thusly rejected under Xedi and Abjanic.

As per dependent claim 67, the applicant discloses the limitations similar to those in claim 45. Claim 67 is thusly rejected under Xedi and Abjanic.

As per dependent claim 68, the applicant discloses the limitations similar to those in claim 46. Claim 68 is thusly rejected under Xedi and Abjanic.

As per dependent claim 69, the applicant discloses the limitations similar to those in claim 47. Claim 69 is thusly rejected under Xedi and Abjanic.

12. Claims 48, 59, and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi and Extol and further in view of Building Oracle and XML Applications (2000, hereafter Oracle).

As per dependent claim 48, Xedi discloses the limitations similar to those in claim 42, and the same rejection is disclosed herein. Xedi fails to specifically disclose the method wherein the operation further comprise propagating the deposit to a join union of the specification. Oracle discloses the method wherein the operation further

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comprise propagating the deposit to a join union of the specification (pages 2-4: Here, an Oracle join query is used to obtain data. This data is then used to generate an XML document).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi's method with Oracle's method, since it would have allowed a user to create an XML document from a query.

As per dependent claim 59, the applicant discloses the limitations similar to those in claim 48. Claim 59 is thusly rejected under Xedi and Malerba.

As per dependent claim 70, the applicant discloses the limitations similar to those in claim 48. Claim 70 is thusly rejected under Xedi and Malerba.

13. Claims 51, 62, and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi in further view of Extol, Abjanic, and Oracle.

As per dependent claim 51, Xedi discloses the limitations similar to those in claim 42, and the same rejection is incorporated herein. Xedi further discloses:

- The processing includes:
 - First processing the specification in accordance with a universal annotated schema adapted to all document types supported by a given industrial electronic document specification language, in order to convert the specification into a first local format ((page 10, last paragraph; pages 12-13, Converting EDI and XML)

- Second processing the first local format in accordance with the revised annotated schema to convert the first local format to a second local format (page 12, Figure 8; pages 11-14)

Xedi fails to specifically disclose:

- The operations further comprise:
 - Determining whether the annotated schema is reversible in view of the specification for deposit
 - Responsive to a determination that the annotated schema is not so reversible, creating a revised annotated schema according to which the specification for deposit is reversible
- Depositing includes propagating the deposit to a join union of the specification

However, Extol and Abjanic discloses:

- The operations further comprise:
 - Determining whether the annotated schema is reversible in view of the specification for deposit (Abjanic: paragraphs 85-86; paragraph 98)
 - Responsive to a determination that the annotated schema is not so reversible, creating a revised annotated schema according to which the specification for deposit is reversible (Extol: pages 18-19)

Further, Oracle discloses:

- Depositing includes propagating the deposit to a join union of the specification (pages 2-4)

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi, Extol, and Abjanic's method with Oracle's method since it would have allowed a user to easily generate an EDI X12 compliant document from a query.

As per dependent claim 62, the applicant discloses the limitations similar to those in claim 51. Claim 62 is thusly rejected under Xedi, Abjanic, and Oracle.

As per dependent claim 73, the applicant discloses the limitations similar to those in claim 51. Claim 73 is thusly rejected under Xedi, Abjanic, and Oracle.

14. Claims 52, 63, and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi, Extol, Abjanic, and Oracle in further view of Kotok.

As per dependent claim 52, Xedi, Extol, Abjanic, and Oracle disclose the limitation similar to those in claim 51, and the same rejection is incorporated herein. Xedi further discloses:

- The universal annotated schema comprising a universal annotated DTD (page 11, last paragraph)
- The first local format comprises an XML document or at least one value pair (page 11)
- The local annotated schema comprises a local annotated DTD or local annotated table (page 11)

Xedi, Extol, Abjanic, and Oracle fail to specifically disclose the method wherein the second local format comprises multiple relational databases. Kotok discloses the

method wherein the second local format comprises multiple relational databases (page 3, paragraph 1)

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined , Xedi, Extol, Abjanic, and Oracle's method with Kotok's method of using a database, since the X12 standard is reliant upon a database.

As per dependent claim 63, the applicant discloses the limitations similar to those in claim 52. Claim 63 is thusly rejected under Xedi, Abjanic, Oracle, and Kotok.

As per dependent claim 74, the applicant discloses the limitations similar to those in claim 52. Claim 74 is thusly rejected under Xedi, Abjanic, Oracle, and Kotok.

Response to Arguments

15. As per the applicant's arguments with respect to claims 1-2, 4-8, 13-14, 16-20, 25-26, 28-32, 37-44, 49, 53-55, 60, 64-66, 71, and 75, the applicant argues that Xedi fails to disclose an annotated schema (pages 22, 24-25, and 27-28). The examiner respectfully disagrees. Xedi discloses the use of the X12 EDI standard (Figure 9). This standard is an annotated schema in that it maps retrieved data into documents that conform to the standard (Extol, "XML: To Be Or Not To Be?" hereafter Extol: page 4, paragraph 1: Here data is retrieved through user input; page 6, paragraph 2: Here, both X12 and EDIFACT are disclosed as mapping data into the layout for various standard documents; Xedi: page 13, paragraph 2). Further, Xedi discloses an annotated schema mapping from the X12 standard to XML (Figure 9). In this case, X12 EDI standard is the first annotated schema retrieving data into a first electronic format. The conversion

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of a first electronic format into a second electronic format using an annotated schema occurs when the DTD disclosed by Xedi, maps the X12 EDI into an XML document (Figure 9; pages 12-13, section "Converting EDI and XML").

As per the applicant's arguments with respect to claims 3, 9, 15, 21, 27, 33, 50, 61, and 72, with respect to Kotok, the applicant argues that value pairs are, "a pair of values" (pages 23, 25, 27 and 31). The examiner respectfully disagrees. Kotok discloses pairs of values (page 5, paragraph 3). Further, the names that are used as tags and the element relationship or transaction form a pair of values, name and relationship/transaction.

As per the applicant's arguments with respect to claims 10-11, 22-23, and 34-35, with respect to Rein, the applicant argues that Rein fails to disclose combining and merging templates (pages 25-26). The examiner respectfully disagrees. Rein discloses the ability to merge several templates in several formats to generate a web page (page 3, paragraph 2).

As per the applicant's arguments with respect to claims 45-47, 56-58, and 67-69, with respect to Abjanic, the applicant argues that Abjanic does not disclose determination of reversibility (page 30). However, the applicant respectfully disagrees. Abjanic discloses the method of determining whether reversibility (paragraphs 85-86 and 98).

16. The applicant's arguments with respect to claims 48, 51-62, 59, 62-63, 70, and 73-74 have been considered but are moot in view of the new ground(s) of rejection.

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The Oracle reference has been added to address the arguments presented by the applicant.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ogbuji, "XML: The future of EDI?": Discloses integration of XML and EDI.
- "EDI and XML time for a dual approach?": Discloses integration of XML and EDI.
- Hill et al. "Electronic Data Interchange: A Definition and Perspective": Disclose EDI general information.
- "ANSI X12": Discloses ANSI X12 general information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle R Stork whose telephone number is (571) 272-4130. The examiner can normally be reached on Monday-Friday (7:00-3:30).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (703) 308-5465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Kyle Stork
Patent Examiner
Art Unit 2178

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CESAR PAULA
PRIMARY EXAMINER